

AMENDMENTS

In the Claims

The following is a marked-up version of the claims with the language that is underlined (“ ”) being added and the language that contains strikethrough (“~~—~~”) being deleted:

1. (Previously Amended) A method for storing data on a computer system, the computer system having volatile memory and non-volatile memory, the volatile memory comprising a volatile memory device, said method comprising:

identifying a first portion of the volatile memory device that is being used to store data;

identifying a second portion of the volatile memory device that is not being used to store data; and

in response to an input corresponding to a power-off condition of the computer system, saving the data corresponding to the first portion of the volatile memory device in the non-volatile memory without saving the data corresponding to the second portion of the volatile memory device in the non-volatile memory.

2. (Previously Amended) The method of claim 1, further comprising:

compressing the data corresponding to the first portion of the volatile memory device as first compressed data; and

wherein saving the data corresponding to the first portion of the volatile memory device comprises saving the first compressed data in the non-volatile memory.

3. (Previously Amended) The method of claim 1, wherein the volatile memory device does not include disk cache.

4. (Previously Amended) The method of claim 1, wherein a copy of the data corresponding to the first portion of the volatile memory device is not also stored in the non-volatile memory prior to the identifying step.

5. (Previously Amended) The method of claim 4, further comprising:

identifying a third portion of the volatile memory that is being used to store data, a copy of the data corresponding to the third portion of the volatile memory also being stored in the non-volatile memory; and

additionally saving the data corresponding to the third portion of the volatile memory in the non-volatile memory if the non-volatile memory has additional storage capacity remaining after allocating storage capacity for saving the data corresponding to the first portion of the volatile memory device.

6. (Previously Amended) The method of claim 4, further comprising:

identifying a third portion of the volatile memory that is being used to store data, the data corresponding to the third portion of the volatile memory also being at least one of:

- a) stored in the non-volatile memory; and
- b) disk cache;

assigning priority to one of:

- a) the data corresponding to the second portion of the volatile memory device;

and

b) the data corresponding to the third portion of the volatile memory for storage in the non-volatile memory; and

if the non-volatile memory has additional storage capacity remaining after allocating storage capacity for saving the data corresponding to the first portion of the volatile memory device, additionally saving at least one of the data corresponding to the second portion of the volatile memory device and the data corresponding to the third portion of the volatile memory in the non-volatile memory based upon the priority assigned.

7. (Currently Amended) A method for storing data on a computer system, the computer system having volatile memory and non-volatile memory, the volatile memory including disk cache, said method comprising:

identifying first data stored in the volatile memory wherein either ~~that is at least one~~ of:

- a) the first data is not also stored in the non-volatile memory; ~~and~~ or
- b) the volatile memory is not disk cache; and

in response to a power-off condition of the computer system, saving the first data in the non-volatile memory; and

identifying second data stored in the volatile memory wherein either ~~that that is at least one of:~~

- a) the second data is stored in the non-volatile memory; ~~and~~ or
- b) the volatile memory is disk cache; and

if the non-volatile memory has additional storage capacity remaining after allocating storage capacity for saving the first data, additionally saving the second data in the non-volatile memory.

8. (Original) The method of claim 7, further comprising:
compressing the first data as first compressed data; and
wherein saving the first data comprises saving the first compressed data in the non-volatile memory.
9. (Canceled)
10. (Previously Amended) The method of claim 7, further comprising:
compressing the second data as second compressed data; and
wherein additionally saving the second data comprises saving the second compressed data in the non-volatile memory.
11. (Previously Amended) A computer system comprising:
volatile memory;
non-volatile memory; and
a power-off memory back-up system operative to:
identify a first portion of the volatile memory that is being used to store data;
identify a second portion of the volatile memory that is not being used to store data; and
save the data corresponding to the first portion of the volatile memory in the non-volatile memory without saving the second portion of the volatile memory in the non-volatile memory in response to an input corresponding to a power-off condition of the computer system,
wherein the power-off memory back-up system is further operative to:

identify a third portion of the volatile memory that is being used to store data, a copy of the data corresponding to the third portion of the volatile memory also being stored in the non-volatile memory; and

additionally save the data corresponding to the third portion of the volatile memory in the non-volatile memory if the non-volatile memory has additional storage capacity remaining after allocating storage capacity for saving the data corresponding to the first portion of the volatile memory.

12. (Canceled)

13. (Previously Amended) The computer system of claim 11, wherein:

the non-volatile memory comprises a hard drive;

the copy of the data corresponding to the third portion of the volatile memory is saved on the hard drive; and

in additionally saving the data corresponding to the third portion of the volatile memory in the non-volatile memory, the power-off memory back-up system is operative to save the data corresponding to the third portion of the volatile memory to the hard drive.

14. (Previously Amended) The computer system of claim 11, wherein:

the non-volatile memory comprises a hard drive and a flash memory;

the copy of the data corresponding to the third portion of the volatile memory is saved on the hard drive; and

in additionally saving the data corresponding to the third portion of the volatile memory in the non-volatile memory, the power-off memory back-up system is operative to save the data corresponding to the third portion of the volatile memory to the flash memory.

15. (Currently Amended) A computer-readable medium having a computer program for performing a computer-implemented method on a computer system having volatile memory and non-volatile memory, with the volatile memory including disk cache, said method comprising:

identifying first data stored in the volatile memory wherein either ~~that is at least one~~
of:

a) the first data is not also stored in the non-volatile memory; ~~and~~ or

b) the volatile memory is not disk cache; and

in response to a power-off condition of the computer system, saving the first data in the non-volatile memory;

identifying second data stored in the volatile memory wherein either ~~that that is at least one of:~~

a) the second data is stored in the non-volatile memory; ~~and~~ or

b) the volatile memory is disk cache; and

if the non-volatile memory has additional storage capacity remaining after allocating storage capacity for saving the first data, additionally saving the second data in the non-volatile memory.

16. (Previously Amended) The computer-readable medium of claim 15, said method further comprising:

compressing the first data as first compressed data; and

wherein saving the first data comprises saving the first compressed data in the non-volatile memory.

17. (Canceled)

18. (Previously Amended) The computer-readable medium of claim 15, said method further comprising:

compressing the second data as second compressed data; and

wherein additionally saving the second data comprises saving the second compressed data in the non-volatile memory.